

**REMARKS**

Claims 1-125 are currently pending in this application. In its amendment filed on 30 November 2005, Applicant provisionally elected **Group I (claims 1-23 and 116)**, with traverse and requested a representative examination.

In the most recent Office Action, the Examiner has rejected claims 1-23 and 116 and claims 24-115 and 117-119 have been withdrawn. The Examiner also stated that since the Applicant's proposal for representative examination has not matured into policy, the Examiner will continue to examine this Application using current practice.

Claims 120-125 are new. Withdrawn claims 42-46 and 65 have been cancelled to offset the addition of the new claims.

**Regarding Restriction**

Examination will proceed for now on Group I. Upon allowance of linking claim 1, many of the claims currently in other groups will be subject to reinstatement.

**Claim Objection to Claim 116**

By way of clarification, "PQ" is used in claim 116 as an arbitrary label, just as "first" or "second" might be used. While PQ is suggestive of presentation quantities and the data in the tables relates to presentation quantities, the arbitrary label "PQ" is not meant to be given any patentable weight or to limit the claims in any way.

**Rejections Under 35 USC § 112 of Claims 1-23 and 116**

The Examiner has rejected claims 1-23 and 116 under 35 USC § 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which Applicant regards as the invention.

The Examiner asks how the additional analysis programs functionally interrelate with the rest of the claims. This is a Jepson claim with a combination of improvements to a retail demand forecasting program and to a set of analysis programs. The output of the retail demand forecasting program is input to the set of analysis programs, as described in the preamble. The additional analysis programs functionally interrelate with the rest of the claim by utilizing the output of the improved retail demand forecasting program that uses a presentation demand calendar.

There is no missing element. The requested clarification having been provided, the rejection under § 112 should be withdrawn.

**Rejections Under 35 USC § 102(e) of Claims 1 and 4-23**

The Examiner has rejected claims 1 and 4-23 under 35 USC 102(e) as being anticipated by Landvater (U.S. 6,609,101).

**Claim 1**

Fundamentally, the Examiner's summary on page 11 of our prior argument (2) is mistaken. The added claim limitation was a presentation demand type that selects one of a plurality of alternative treatments of presentation demand. A "presentation demand type" that selects an alternative treatment of presentation demand does not relate to a type fixture or display used, it relates to a mathematical treatment of the forecast demand, irrespective of the number of shelves or the type of fixtures on which goods are displayed. Examples of presentation demand types are given on pp. 4-5 and 14-15 of the application. Added claims 120-125, which depend from claim 1, set forth the presentation demand types disclosed. None of the presentation demand types disclosed in the application have anything to do with types or styles of presentation.

Landvater teaches one treatment of presentation quantities for one presentation demand type, not six alternative treatments of presentation quantities or even two treatments. Landvater Figures 14-15 illustrate the logic in replenishment system 200 for converting shelf configuration into safety stock level and for updating safety stock requirements. See, 14:59-15:25. Only one logic is suggested, without any alternatives. When the Examiner decides which of the six logics that Landvater uses, the other five should be patentable.

If the Examiner has a different claim wording to suggest, consistent with this explanation, please call the undersigned. We have gone back and forth enough times for the Examiner to suggest the wording that she finds acceptable for the innovations in this disclosure that are allowable over Landvater.

Regarding the argument (1) summarized on OA page 11, our response was much more extensive than the OA acknowledges. The amended claim 1 now requires two-out-of-three of OTB, markdown management and promotional forward buying. Our prior response explained that Landvater lacks markdown management and promotional forward buying analysis. As the Examiner did not take issue with our position that Landvater lacks markdown management and promotional forward buying analysis, the claim as amended should now be allowable. For ready reference, we repeat our

explanation regarding these elements, to which the Examiner appears to have acquiesced.

Landvater lacks a markdown management report, which is not surprising given the absence of any mention of markdowns. This term of art is invoked and applied on page 9 of the application:

Markdown management: A markdown management system or markdown activity within a system typically determines the optimal timing and level of markdowns of a seasonal or fashion program in order to sell the total purchased quantity by a predetermined "out date" while maximizing revenue. In order for a markdown management system to perform, it needs to query the causal event calendar in order to determine what event occur between the date of the markdown analysis and the "out date" in order to calculate the expected selling. For example, an good that has no event planned before its "out date" might require a markdown in order to reach full sell-through based on the rate of selling to-date; however, that same good with the same selling to-date may not require a markdown if some other event – a visual promotion, perhaps – is planned to take effect between the date of analysis and the "out date." Because the future likely rate of selling is critical to calculating what markdowns and markdown levels will be required, the Markdown system or Markdown activity should find it is helpful to get the causal event information from the causal event calendar in order to make the most accurate determination of what markdowns are best.

The Examiner seems to understand that Landvater lacks markdown management, as none of the discussion at OA pages 3-4 applies passages of Landvater to markdown management. Therefore, the markdown management integrated reporting limitation is a further basis for allowing the claim.

Landvater also lacks a promotional forward buying analysis, as promotional forward buying analysis is described by the application at [0035], [0042] and [0053-54] and as promotional forward buying analysis would be understood by one of skill in the art.

Without acquiescing to Landvater describing a real OTB analysis, it is clear that Landvater does not include either of the other two and, therefore, does not include the claimed two-out-of-three combination.

For these two independent reasons, claim 1 should be allowable.

(It is our position that it would be improper to enter a final rejection at this time, because the positions repeated verbatim above did not receive any response from the Examiner in the last office action, following an RCE. Applicants would be deprived of

the two chances to advance the case, to which they are entitled after filing an RCE, if a final rejection were entered with the first response to the positions repeated verbatim.)

Claims 4-14

Claims 4-14 should be allowable over Landvater for at least the same reason as the claims from which they depend.

Claims 16-18

**Claims 16-18** include limitations that specify how the additional analysis programs (OTB, markdown management and promotional forward buying) apply to individual or groups of goods and selling locations:

a single good at a single selling location

*a single good at a group of selling locations*

*a group of goods at a single selling location*

*a group of goods at a group of selling locations*

The italicized variations on processing by the additional analysis programs are not taught by Landvater, which groups products only for “forecasting and replenishment planning”. Col. 15, lines 28-29. While Landvater mentions multiple stores, it does not teach performing OTB, markdown management or promotional forward buying for either a single good at a group of selling locations or a group of goods at a group of selling locations. Grouping locations for these kinds of analysis does not necessarily follow from there being multiple locations and is not expressly taught in any of the cited passages or any other part of Landvater.

Therefore, claims 1-18 should be allowable over Landvater.

Claims 19-22

Claims 19-22 should be allowable over Landvater for at least the same reason as the claims from which they depend.

Claim 23

**Claim 23** includes the limitations:

*wherein the analysis generated by the additional analysis programs is utilized as input to an additional process*

This limitation applies to OTB analysis, markdown analysis, and promotion forward buying analysis. The passages cited from Landvater do not use the output of these

analyses as input to an additional process in an integrated system. By and large, Landvater does not produce these analyses at all, as discussed above.

Therefore, claim 23 should be allowable over Landvater.

**Rejections Under 35 USC § 103(a) of Claims 2 and 3**

The Examiner has rejected claims 2 and 3 under 35 USC 103(a) as being unpatentable over Landvater, a single reference.

**Claim 2**

**Claim 2** includes the limitations:

*wherein the start date and the stop date are implicitly associated with a memory location in which the presentation quantity is stored*

These limitations are not found in Landvater. The passages cited by the Examiner include clear reference to explicitly including at least the start date in the shelf configuration database:

Database 36 preferably stores the following shelf configuration information: the number of facings (product facing the consumer), the minimum number of rows deep required to create an attractive display, the maximum number of rows allocated to this product, the amount of back room safety stock (safety stock maintained in a location other than the store shelf), and the date this configuration becomes effective.

Col. 14, lines 37-45. Clear reference to explicitly associating the start date and the presentation quantity teaches away from this claim.

**Claim 3**

Claim 3 should be allowable over Landvater for at least the same reason as the claim from which it depends.

**Rejections Under 35 USC § 103(a) of Claim 116**

The Examiner has rejected claim 116 under 35 USC 103(a) as being unpatentable over Landvater in view of Display Unlimited ([www.displayunlimited.com](http://www.displayunlimited.com)).

**Claim 116** includes the limitations on what the presentation calendar includes:

*a schedule of display fixtures including fixture identifiers for a plurality of fixture types and quantities of the fixtures present at particular selling locations; and*

*one or more PQ tables, the PQ tables associating with a plurality of good-selling location pairs, data including the fixture identifier, the good identifier,*

*the selling location identifier, and the one or more presentation quantities each associated with the start and stop dates*

These limitations are not found in Landvater.

The art cited to counter claim 116 is a furniture advertisement. This Examiner is the first, in our experience, to cite an advertisement for hard goods against a software case. (Consulting/design services for those buying display fixtures are ancillary to selling. See, e.g., [www.BeffelLighting.com](http://www.BeffelLighting.com).) Citation of a furniture advertisement as the most relevant prior art after multiple searches means that this claim should be in condition for allowance.

This claim makes it clear that the schedule of display fixtures, including fixture identifiers for multiple fixture types, provides an intermediate abstraction in software for a variety of physical fixture types (Applic. 8-9) used for retail display. The Examiner acknowledged during our interview of a related case and again in this office action (OA 10-11) that Landvater does not suggest any such intermediate abstraction.

In this OA at page 10, the Examiner somewhat overstates Landvater's disclosure regarding "shelves and floor models". The passage at col. 14, lines 25-58, describes how to count the items on shelves or used as floor models, but that is not the same as having an intermediate level of abstraction to represent different display fixture types. Along the lines of "shelves", Landvater teaches counting the number of shelves, the number of facings on a shelf and the number of rows behind a facing. Col. 14, lines 38-51. To us, that is one display fixture type: a shelf that comes in different sizes, as opposed to a variety of display fixture types, such as those listed in this application. Certainly, Landvater does not suggest any intermediate abstraction of a named display fixture type for representing different shelves. Along the lines of "floor models", Landvater refers to a bed that can be displayed on the floor without any display fixture (col. 14, lines 51- 55), which still leaves Landvater with only one configuration of display fixture: a shelf that comes in various sizes. Someone reading the Examiner's words might get the wrong impression and think that Landvater had something to do with the variety of display fixture types that are used in retailing.

The second reference, the furniture sales site "Display Unlimited", has nothing to do with software design. One of ordinary skill in the art would be more likely to use

Display Limited to furnish their office for walk-in software sales than to view it as an inspiration for software design. The furniture advertisement is far off point.

The Examiner argues (OA at 11) that the schedule of fixture types is non-functional, which suggests a misapprehension of how the claimed method works. Instead of having to count the number of shelves and number of facings and rows on each shelf, using an intermediate abstraction of fixtures allows a convenient way to keep track of capacity for goods at a higher level of aggregation than shelf-by-shelf.

On page 11 of the Office Action, the Examiner waves a hand at combining Landvater, well-known retailing practices and the furniture advertisement to produce a different software design than Landvater discloses. The Examiner offers an obviousness argument of the form, <one uses furniture as advertised in catalogs>, therefore, it would be obvious to <design software as claimed to represent the capacity of the advertised furniture>. That form of argument does not satisfy the case law, the MPEP or common sense.

The standard set by *In re Lee*, 277 F.3d 1338, 1342-44, 61 USPQ2d 1430, 1433-34 (Fed. Cir. 2002) requires more. The Federal Circuit clarified the need for evidentiary quality support of an examiner's factual basis for finding a teaching, suggestion or motivation in the prior art (as opposed to an examiner's opinion), 277 F.3d at 1343-44:

As applied to the determination of patentability vel non when the issue is obviousness, "it is fundamental that rejections under 35 U.S.C. § 103 must be based on evidence comprehended by the language of that section." *In re Grasselli*, 713 F.2d 731, 739, 218 U.S.P.Q. (BNA) 769, 775 (Fed. Cir. 1983). ... "The factual inquiry whether to combine references must be thorough and searching." *Id.* It must be based on objective evidence of record. This precedent has been reinforced in myriad decisions, and cannot be dispensed with. [citation omitted] The need for specificity pervades this authority. See, e.g., *In re Kotzab*, 217 F.3d 1365, 1371, 55 U.S.P.Q.2D (BNA) 1313, 1317 (Fed. Cir. 2000) ("**particular findings must be made as to the reason the skilled artisan, with no knowledge of the claimed invention, would have selected these components for combination in the manner claimed**"); *In re Rouffet*, 149 F.3d 1350, 1359, 47 U.S.P.Q.2D (BNA) 1453, 1459 (Fed. Cir. 1998) ("even when the level of skill in the art is high, the Board must identify specifically the principle, known to one of ordinary skill, that suggests the claimed combination. In other words, the Board **must explain the reasons one of ordinary skill in the art would have been motivated to**

**select the references and to combine them** to render the claimed invention obvious."); *In re Fritch*, 972 F.2d 1260, 1265, 23U.S.P.Q.2D (BNA) 1780, 1783 (Fed. Cir. 1992) (the examiner can satisfy the burden of showing obviousness of the combination "only by showing **some objective teaching** in the prior art or that knowledge generally available to one of ordinary skill in the art **would lead that individual to combine the relevant teachings of the references**"). ... In its decision on Lee's patent application, the Board rejected the need for "any specific hint or suggestion in a particular reference" to support the combination of the Nortrup and Thunderchopper references. Omission of a relevant factor required by precedent is both legal error and arbitrary agency action.

(Emphasis added.) The Examiner's reasoning does not acknowledge or satisfy this standard.

Following *In re Lee* and *In re Kotzab*, the Examiner is required to cite a statement of motivation for the skilled artisan, with no knowledge of the claimed invention, to have selected components from Landvater and the furniture catalog and to combine them in the manner claimed. The Examiner's whole reasoning (OA 11) rests on Landvater col. 14, lines 25-35 and 55-65, which read:

Another feature of replenishment system 200 is the calculation of time-phased safety stock levels based on the current and future arrangement of products on the shelves of retail stores 23. As explained above, planned replenishment orders which are calculated without accounting for the future changes in shelf configuration will be inaccurate. Consequently, they have limited use in planning for products at suppliers 24 (the second level in the supply chain, a retail distribution center for example), and planning projected inventory levels at retail stores 23 and suppliers 24.

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If a mattress were not stocked in the back, and someone were to buy the mattress on display, there would be nothing to display until the next shipment from the suppliers or supplier. FIG. 14 illustrates the logic in replenishment system 200 for converting shelf configuration into safety stock level. Initially, at step 250, the current shelf configuration is converted into a safety stock level by multiplying the facings by the minimum rows deep needed for an attractive display. Next, at step 252, a determination is made if shelf changes are needed. If there are any future shelf changes, the logic proceeds to step 254 where shelf change arrays are loaded.

These passages do not teach, suggest or motivate combining Landvater and the furniture catalog to produce an intermediate abstraction of named display fixture types. The passages allow for either assigning presentation quantities by location, regardless



of fixtures and fixture setups (Applic. pp. 10-11) or counting shelf facings as one would do at a grocery store (Landvater, col. 14). Both of these approaches meet Landvater's accuracy motivation, without teaching or suggesting the claimed intermediate abstraction.

The only source in this case for teaching how to combine the references is the text of claim 116, itself. Therefore, the Examiner's motivation argument relies on hindsight, which is difficult to avoid when the references do not teach or suggest the claimed combination. 2-5 Chisum on Patents § 5.03 [2][c] n. 29 (2005 Lexis version); e.g. *ATD Corp. v. Lydall, Inc.*, 159 F.3d 534, 546, 48 USPQ2d 1321, 1329 (Fed. Cir. 1998) ("Determination of obviousness can not be based on the hindsight combination of components selectively culled from the prior art to fit the parameters of the patented invention."); *Grain Processing Corp. v. American Maize-Products Corp.*, 840 F.2d 902, 907, 5 USPQ2d 1788, 1792 (Fed. Cir. 1988) ("Care must be taken to avoid hindsight reconstruction by using 'the patent in suit as a guide through the maze of prior art references, combining the right references in the right way so as to achieve the result of the claims in suit.'").

The claimed intermediate abstraction level is admittedly novel and plainly non-obvious over the art of record. Therefore, following at least three searches in this case and additional (presumably) searches in closely related cases, claim 116 should be allowable because it readily distinguishes over the prior art.

#### **Added Claims 120-125**

Claims 120-125 give examples of how the method responds to various presentation demand types, specifying a variety of alternative mathematical or algorithmic treatments.

Support for these alternative treatments appears in the original specification, *inter alia*, on pages 4-5 and 14-15, as discussed above.

**CONCLUSION**

Applicant respectfully submits that the pending claims are now in condition for allowance and thereby solicits acceptance of the claims, in light of these amendments.

The undersigned can ordinarily be reached at his office at (650) 712-0340 from 8:30 a.m. to 5:30 p.m. PST, Monday through Friday, and can be reached at his cell phone at (415) 902-6112 most other times.

Respectfully submitted,

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/ejb/  
Ernest J. Beffel, Jr.  
Registration No. 43,489

HAYNES BEFFEL & WOLFELD LLP  
P.O. Box 366  
Half Moon Bay, CA 94019  
Telephone: (650) 712-0340  
Facsimile: (650) 712-0263